



A DOCPHOENIX

OUTGOING

 CTMS
Miscellaneous Office Action

 IMIS
Miscellaneous Internal Document

 NRES
Letter Restarting Period for Response

 1449
Signed 1449

 892
892

 ABN
Abandonment

 APDEC
Board of Appeals Decision

 APEA
Examiner Answer to Appeal Brief

 CRFR
Letter Requiring CRF

 CTAV
Count Advisory Action

 CTEQ
Count Ex parte Quayle

 CTFR
Count Final Rejection

 CTNF
Count Non-Final

 CTRS
Count Restriction

 EXIN
Examiner Interview

 FOR
Foreign Reference

 M903
DO/EO Acceptance

 M905
DO/EO Missing Requirement

OUTGOING

 NFDR
Formal Drawing Required

 NOA
Notice of Allowance

 NPL
Non-Patent Literature

 PEFN
Pre-Exam Formalities Notice

 PETDEC
Petition Decision

 ANE.I
After Final or 312 Amendment

PTO INTERNAL

<u> </u> CLMPTO <u> </u> PTO Prepared Complete Claim Set	<u> </u> SRNT <u> </u> Examiner Search Notes	<u> </u> SEQREQ <u> </u> Sequence Problem Att from Examiner
<u> </u> IIFW <u> </u> File Wrapper Issue Information	<u> </u> SRFW <u> </u> File Wrapper Search Info	<u> </u> CDCHECK <u> </u> Compact Disk Review Checklist



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/021,782	12/18/2001	Cyrus E. Tabery	50432-293	1966

20277 7590 12/08/2003
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EXAMINER
ISAAC, STANETTA D

ART UNIT	PAPER NUMBER
2812	

DATE MAILED: 12/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/021,782	TABERY ET AL.	
	Examiner	Art Unit	
	Stanetta D. Isaac	2812	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: |

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Response to Arguments

1. In view of the Appeal Brief filed on 09/22/03, PROSECUTION IS HEREBY REOPENED.

2. Applicant's arguments see REMARKS, filed 02/27/03, with respect to the rejection(s) of claim(s) 1-14 under 102 and 103 Rejections have been fully considered and are persuasive.

Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Yamazaki et al. US Patent 6,242,292.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 1,3-6,8-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Yamazaki et al. US Patent 6,242,292.

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5. Yamazaki discloses a semiconductor method substantially as claimed. See **FIGS. 1-6B** where Yamazaki teaches a method of manufacturing a semiconductor device, comprising the steps of:

forming a gate electrode over a substrate; (See **col. 9 lines 26-50**)

introducing ions into the substrate **11** to form source/drain regions (**51, 52**) in the substrate proximate to the gate electrode;

activating a portion of the source/drain regions by laser thermal annealing using a laser; (See **col. 9 lines 26-50**)

moving the laser and the substrate relative to one another; and (See **col. 6 lines 3-45**)

activating another portion of the source/drain regions by laser thermal annealing using the laser,

wherein the movement of the laser and the substrate relative to one another is continuous between and during the steps of activating the portion of the source/drain regions and activating the other portion of the source/drain regions. (See **col. 9 lines 26-50**)

6. Pertaining to claim 3, Yamazaki teaches the invention according to claim 1, wherein each portion of the source/drain regions receives more than one single pulse of energy from the laser. (See **col. 7 lines 1-63**)

7. Pertaining to claim 5, Yamazaki teaches the invention according to claim 1, wherein a spot area of the laser on the substrate is less than 50 millimeters².

8. Pertaining to claim 6, Yamazaki teaches a method of manufacturing a semiconductor device, comprising the steps of:

forming a gate electrode over substrate;

introducing ions into the substrate to form source/drain regions in the substrate proximate to the gate electrode;

activating a portion of the source/drain regions by laser thermal annealing using a laser;

moving the laser and the substrate relative to one another; and

activating another portion of the source/drain regions by laser thermal annealing using the laser,

wherein a spot area of the laser on the substrate is less than 50 millimeters² (See **col. 3 lines 24-25 where the linear beam of 1mm width and 125 mm length is equal 12.5 mm²**)

9. Pertaining to claim 8, Yamazaki teaches the invention according to claim 6, wherein each portion of the source/drain regions receives more than one single pulse of energy from the laser. (See **col. 7 lines 1-63**)

10. Pertaining to claims 4, 8, 9 and 12, Yamazaki teaches the invention according to claim 8, wherein each pulse from the laser respectively irradiates non-identical portions of the source/drain regions. (See **col. 7 lines 1-63**)

11. Pertaining to claim 10, Yamazaki teaches the invention according to claim 6, wherein the laser and the substrate move relative to one another at a constant velocity.

12. Pertaining to claim 11, Yamazaki teaches a method of manufacturing a semiconductor device, comprising the steps of:

forming a gate electrode over a substrate; introducing ions into the substrate to form source/drain regions in the substrate proximate to the gate electrode;

activating a portion of the source/drain regions by laser thermal annealing using a pulse of laser energy from a laser; moving the laser and the substrate relative to one another; and

activating another portion of the source/drain regions by laser thermal annealing using another pulse of laser energy from the laser,

wherein the laser and the substrate move relative to one another after each pulse of laser energy and each portion of the source/drain regions receives more than one single pulse of energy from the laser.

13. Pertaining to claim 13, Yamazaki teaches the invention according to claim 11, wherein a spot area of the laser on the substrate is less than 50 millimeters².

14. Pertaining to claim 14, Yamazaki teaches the invention according to claim 11, wherein the laser and the substrate move relative to one another at a constant velocity. (See **col. 6 lines 3-45**)

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 2 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over rejected under 35 U.S.C. 103(a) as being unpatentable over Yamazaki et al. Patent Number 6,242,292 in view of prior art

3. Claims 2 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamazaki et al. Patent Number 6,242,292 in view of prior art.

4. Pertaining to claims 2 and 7, Yamazaki fails the invention according to claim 1, wherein each portion of the source/drain regions receives no more than one single pulse of energy from